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ABSTRACT

Half of all students who begin college in America--and an even higher proportion of underrepresetned minorities--matriculate at community colleges. If the bachelor's degree is a requisite for major social and economic advancement, then transfer must be an essential community college mission. Calculating the transfer rate is important as a measure of how many students are passed through a two-year college toward the baccalaureate. Until recently, transfer rates were not reported with any precision or consistency across states or institutions. In 1989, the Center for Study of the Community Colleges (CSCC) established the following definition for use in calculating a national transfer rate: all students entering the community college in a given year who have no prior college experience and who completed at least 12 college units, divided into the number of that group who take one or more classes at an in-state, public university within 4 years. National transfer rates for each year of the CSCC's Transfer Assembly were 23.7% for students entering in 1984; 23.6% for the 1985 cohort; 23.4% for the 1986 cohort; 22.6% for the 1987 cohort; 22.1% for the 1988 cohort; and 21.2% for the 1989 cohort. Differences in high school graduation, college participation, and college graduation rates by members of various ethnic groups were reflected in the transfer-rate data, which shows a 12.5% transfer rate for Black students, a 12.4% transfer rate for Hispanic students, a 23.4% transfer rate for White students, and a 23.6% transfer rate for Asian students. A variety of factors influences differences in transfer rates between states and institutions, including organizational patterns, effectiveness of transfer center staff, university admissions criteria, and a history of high transfer rates. Contains nine references. (KP)

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Orderly Thinking About a Chaotic System

Arthur M. Cohen

The American compulsory education system is rationally organized. The students must attend; they progress annually from one grade to the next. Courses and curriculum are designed to follow predictable paths. The faculty are monitored; the textbooks are uniform.

Higher education, in contrast, is disorderly. It is organized in a variety of forms: residential, commuter, and distance-learning institutions. The colleges award numerous degrees: associates, bachelors, masters, doctorates. They are financed and governed through a variety of overlapping arrangements: public, private, profit making. They emphasize research, technical studies, liberal arts, and various combinations of all of them.

The students in American higher education are messy. They attend at their own convenience, stopping in and out as their life circumstances dictate. Some begin immediately upon graduating from high school, others delay entry for a decade or more. They start in community colleges and transfer to universities, start at universities and transfer to community colleges, begin at both types of institutions simultaneously. They attend in sporadic fashion and switch programs repeatedly. Eventually most of them attain a certificate indicating that they have accumulated a certain number of credit hours and satisfied the requirements at some degree granting institution.

The curriculum in American higher education is confused. It encompasses literacy studies, general education, core requirements, electives. It centers on the liberal arts,

occupational studies, studies for an individual's personal interest. Content of what are ostensibly the same courses varies across institutions and often within different sections in the same course in the same institution. Some of it rests on a canon that is centuries old; other parts of it reform continually.

Instruction is chaotic. Students may be confronted with a multimedia laboratory in their first course in a subject area while the succeeding course is taught through a lecture method. One class encourages students to cooperate with each other on learning projects; in another they are expected to compete. The students are confronted with different types of tasks within the same curriculum. They go through years of courses in which they are told what papers to write, what tests to take, and then, in graduate school, they face independent learning situations.

Wouldn't it be easier if higher education were orderly. If institutions had distinct roles. If curriculum were comprised of discrete courses, each beginning where the other ended, each with measurable entry and exit criteria. If the students enrolled in the programs for which they were best suited and from which they could derive the most benefit.

But it is not and because of its complexities an entire stratum of middle managers has arisen. Counselors, articulation officers, interinstitutional representatives, instructional coordinators, orientation-program managers, registrars and admissions practitioners, and public relations officials all attempt to bring order to the continually reforming enterprise. All help the students to navigate through the choppy system while at the same time assisting the staff members who play various roles in communicating with each other. It is they to whom this paper is addressed.

Access and Community Colleges

All higher education matriculants enter somewhere; the first entry is a one-time event. Half do so in the community colleges, the most accessible of all postsecondary structures. In the early 1990s in several states, less than 10 percent of the first-time freshmen left their home state to attend college. This group included Arizona, California, Michigan, Mississippi, North Carolina, Texas, and Washington, all distinguished by their having well developed community colleges within easy commuting distance of practically everyone in the state. The states in which more than 30 percent of the first time freshman left home included Connecticut, Maine, New Hampshire, New Jersey, and Vermont, states with poorly developed comprehensive community college systems (NCES, *Residence and Migration*, January 1995). Access and community colleges are solidly welded.

Another way of looking at the community colleges' importance in sustaining access is to compare community college enrollment with the state's population. In eighteen states the proportion of community college enrollment that is comprised of African American students exceeds the proportion of African Americans in that state's population. But a similar pattern holds for Hispanics in *forty-one* states. Arizona, for example, has a population comprised of 9 percent Hispanics but in the Arizona community colleges, 15 percent of the students are Hispanic. Comparable figures for California are 12 percent in the population and 18 percent of the students; in Florida, 10 and 13 percent; Colorado, 8 and 12 percent; Texas, 15 and 23 percent; Illinois, 4 and 10 percent (Cohen and Brawer, in press). Clearly the Hispanics are an

underrepresented minority that uses the community college as its point of access to higher education.

Those who deplore the community college as the point of first access for underrepresented groups claim that it acts to divert students away from the baccalaureate. And it is true that students who begin their higher education in a university are more likely to attain a baccalaureate then those who begin at a community college. It is also true that people who board non-stop flights are more likely to reach their destination than those who have to change planes along the way. A longer-term perspective is in order. Prior to the 1960s access was considered allowing an individual the right to fail. Students matriculated and frequently dropped out short of attaining their goals. Subsequently a series of supports were set in place so that students would be discouraged from leaving until they had attained the goal for which they had entered. Accordingly the right to fail should be viewed as the first step on the road to open access. It was in vogue in the elementary schools of the 19th century. Gradually though, the system adjusted to new students, integrating them, and modifying its programs to accommodate them. Just as the lower schools had abandoned the right-to-fail concept by the middle of the 20th century, the community colleges are abandoning it at the end of the century.

Access to higher education can be for many purposes. It can prepare an individual to enter a professional career, one that denies entry to people who do not possess credentials awarded by higher education institutions. It can help people address their own interests, providing courses and programs in a variety of arenas, all leading to self improvement. It connects people with ideas, peer groups, and institutions with which they may be proud to

affiliate for a lifetime. Communities, too, take pride in their colleges, pointing to them as contributors to the economy as well as to the culture of the locality.

Because the baccalaureate degree is the most venerable in American higher education it is often perceived as the minimum requirement to be sustained by someone who has graduated from college. The various attempts to have the associate degrees and occupational certificates granted by community colleges recognized as valuable awards have borne little fruit. Many commentators contend that unless students receive the bachelor's degree they may be considered to have not completed college. The data on earnings obtained by people who have been to college show that receipt of the baccalaureate is indicative of a considerably higher boost in one's earning capacity. According to the National Center for Education Statistics, in 1992 the earnings advantage of having a bachelor's degree was more than double the earnings advantage of having attended only some college. For every dollar earned by a 25 to 34 year-old worker with 12 years of schooling, one who had from one to three years of college earned $1.17 but those with the baccalaureate or higher earned $1.57 (1994, p. 277).

This puts the community college in a peculiar position. Half the people who begin college in America and an even higher proportion of the underrepresented minorities matriculate at community colleges. If the bachelor's degree is a requisite for major advancement, then these people must transfer to another institution if they are to be considered successful graduates. This makes transfer, only one of the community college's major missions, an essential component. Measuring the colleges' transfer rates is important because it relates to the institution's passing its students through to the baccalaureate. Calculating the transfer rate by no means elevates the

transfer function above the college's job entry, literacy, and other curricular functions but it is basic to describing its place in the overall education scheme.

Transfer

Until the past few years transfer rates were not reported with any precision. Different institutions, different states had variant definitions of transfer rate. Any definition for calculating transfer rates is imperfect because it excludes some pertinent data. For example, the measure must be based on some group of students: an entering set, an exiting set, or some subset within a larger group. Which group to choose? The data must be available; defining a way of assessing transfer for which data cannot be assembled uniformly and consistently across the nation is a sterile exercise. And even though theoretically students are potential transfers until they either show up at a university or die, the rate must be calculated for some finite time period.

In 1989 the Center for the Study of Community Colleges set out to compute transfer rates nationwide. Determining at the outset that the definition should be valid, readily understandable, and based on data that are feasibly obtainable, the Center settled in on the definition; all students entering the community college in a given year who have no prior college experience and who complete at least 12 college units, divided into the number of that group who take one or more classes at an in-state, public university within four years.. The definition did not include student intentions, the year that the student graduated high school, students taking only academic

courses, full-time students only, associate degree recipients, or students who had completed the freshman year. It did include all students taking any type of college credit courses because occupational programs contribute a great number of transfers; students who have completed 12 units, which equates to one term of full-time enrollment or one course a year for four years; a four-year span between community college entrance and transfer because few students matriculate and then move on within only a couple of years; and transfer to in-state public universities only because in most states the independent universities provide the data only inconsistently and data on out of state transfers are even more difficult to obtain.

The staff began the project by inviting samples of the nation's community colleges to participate in the Transfer Assembly. Initially, the 240 colleges with at least 25 percent minority student enrollment made up the invitation list because the Ford Foundation, the project's sponsor, was particularly interested in the progress of minority students. The first round of requests in 1989 found forty-eight of the invited institutions able to provide the data on the students who had entered their college in 1984 with no prior college experience and who had begun course work at a university by 1989. In the following year the same 240 colleges were again asked to provide the data, this time on their 1985 entrants, and 114 colleges participated. In 1991, the sample of colleges invited was expanded and 155 colleges participated.

In 1992, the Transfer Assembly began seeking the data from the state agencies as well as from the colleges. The reason for this shift was that individual community colleges can provide data on the number of students who entered in a given year with no prior college experience and on the number of that group who completed at least twelve college credit units, but they cannot typically provide information on the number of that group who matriculated at

a university. The first two data elements can be derived from the community colleges' own student information system, whereas the data on students who took classes at a university must be obtained from the receiving institutions.

Soliciting the requisite information from the state higher education agencies proved considerably more fruitful. A few states have coordinated student information systems and were able to generate community college and university student information from that source; New York, Kentucky, and Colorado are examples of such states. Other states have centralized community college databases that could be matched with centralized public university databases; Illinois and North Carolina are examples of such systems. And in others there is a centralized public university student information system against which matches can be run if the data on entering students who receive twelve units can be obtained from the community colleges; Texas and California exemplify such states, the latter having two central data systems, one for the California State University system and the other for the University of California.

The transfer rates for each year of the Transfer Assembly were:

No. of Participating Colleges	Year Students Entered	No. of Entrants	Percent Receiving 12+ Credits Within Four Years	Percent Transferring Within Four Years
48	1984	77,903	50.5	23.7
114	1985	191,748	46.7	23.6
155	1986	267,150	46.7	23.4
366	1987	507,757	46.9	22.6
395	1988	522,758	45.5	22.1
374	1989	450,371	45.1	21.2

By soliciting data from the state agencies the number of colleges increased each year until institutions with more than 40 percent of the enrollment in the nation's public community colleges were participating. In Fall, 1989, these colleges served as the point of first entry to higher education for 450,371 students; 228,813 of these students received at least 12 credits at the college they entered; and by 1993, 48,601 of the latter had transferred to a baccalaureate degree-granting institution. Included in the 374 colleges that provided data on their 1989 entrants were all or most of the public community colleges in California, Colorado, Illinois, Kentucky, Louisiana, Minnesota, New Jersey, New York, North Carolina, Oklahoma, Rhode Island, Texas, West Virginia, and Wisconsin, plus a few colleges from 6 other states.

The definition fits well with other indicators of college contributions to students' progress, most of which establish a specific cohort and then track its movement through the institutions and into succeeding endeavors. Its chief limitation is that, by omitting the students who take longer than four years to transfer, it yields an undercount. Many students take more time from initial entry to transfer; several studies have identified transfers who showed up in universities ten years and more after community college matriculation. Holding the books open for two or three years longer might add as much as five percent to the transfer rate, especially in higher education systems that expect transferring students to have earned a minimum number of credits (Garcia, 1992). A second limitation is that in most cases the transfers to independent universities or to out-of-state universities cannot be traced. In those states where the independent sector is most prominent—the Middle Atlantic and New England, especially—the transfer rate is correspondingly penalized.

A few commentators have proposed definitional modifications that, if effected, would increase the colleges' transfer rate by depressing the denominator. Their comments have centered on two points: the curriculum that students follow; and student intentions or aspirations.

The curriculum issue usually raised is that the students who take occupational classes should not be included in the denominator. The Assembly leaves them in because many occupational classes (62 percent in California) are in fact transferable to a state university. Furthermore, the Center staff could not quite figure out how to categorize the students whose transcripts show an indistinct path; two courses per term, for example, one in English, the other in Computer Use; one in History, the other in Small-Business Management. Are such students properly classified as university or workforce-bound?

Students' intentions undoubtedly influence their actions, but for several reasons they are unusable in a study of this type. First, not all colleges ask them and the Transfer Assembly depends on data collected uniformly across the nation. Second, the way that the question is framed among the colleges that do ask it severely biases the responses. The open-end question, "What is the highest academic degree that you intend to obtain?" yields answers quite different from the more specific, "What is the most important reason that you are attending this college at this time?" Third, many students switch intentions after one or two college terms. The students who declare occupational intent at first enrollment but who subsequently say they want to transfer deserve consideration; they have been warmed up, as it were, and the college deserves credit for their progress. In both examples, curriculum paths and declared intentions, the students' eventual behavior speaks for itself. After reviewing the course-taking patterns of students in the San Diego Community College District, Armstrong and Barnes noted, "Thus it

appears that transfer directed behaviors are perhaps better indicators of transfer intent than student responses to surveys or the initial application for admission" (1995, p. 7).

Although the Transfer Assembly was not designed to answer it, an intriguing question is, What happens to the students who do not complete four courses in four years? This early-attrition phenomenon has long been noted. For example, the California Statewide Longitudinal Study (Hunter and Sheldon, 1980) found numerous students enrolling but never attending classes, or attending classes but dropping them before the end of the first term. After interviewing a number of these early leavers the researchers concluded that "most of the reasons given for class drops do not involve issues over which the college has a great deal of control or responsibility (p. 31)." The Transfer Assembly chose not to consider these marginal enrollees in the transfer-rate calculation because the college staff may never have even seen them. Nor did it consider the students who took a summer class on their way to freshman matriculation at a university. In neither case should the community college be held accountable for the students' eventual entry, or lack of entry, in a baccalaureate-granting institution.

The year-to-year consistency in both the percent of entering students who received 12 or more credits within four years and the percent who transferred is notable, especially since the sample of colleges increased each year. Still, the national transfer rate of 21 percent masks many differences between institutions and between states. In California, for example, the overall transfer rate for the sixty-five community colleges that participated in the study was 18.1 percent. But the range was from 3 to 32 percent. Similarly, even though the transfer rate in most of the states with comprehensive community college systems clustered around the 22 percent national mark, the state transfer rates ranged from 11 to 40 percent.

The Center's definition and mode of calculating transfer rates has been accepted generally because it fits well with many activities that have been proceeding to establish indicators of college achievement. In 1994 the Illinois Community College Board adopted the definition provisionally because that group felt it important to subdivide the file by the programs in which that state's students were enrolled. In 1995 the Southern Regional Education Board adopted the definition unconditionally and recommended that the 15 states in its region contribute data according to it. The higher education coordinating boards in a few other states also have applauded the definition and pledged to continue supplying the data.

Minority Student Progress

The difference in high school graduation, college participation, and college graduation rates exhibited by members of various ethnic groups was reflected in the transfer-rate data. White and Asian students transferred at a rate higher than the norm while African-American and Hispanic students were, predictably, below the norm. These findings parallel the studies of minority student progress in other sectors of higher education. As reported by the American Association of State Colleges and Universities (1994) the six-year graduation rate for white freshmen entering in 1986 was 44 percent whereas the rate for black students was 28 percent and for Hispanics, 30 percent. Clearly, the different rates of progression are not exclusively a community college phenomenon. Moreover, the national averages mask differences among the colleges. In the Center study, in colleges with transfer rates above the norm, the African-

American students transferred at a rate considerably above the norm for their group and the Hispanic students transferred at a rate higher than the overall norm. A comparable effect was seen in low transfer rate institutions with the rate for the underrepresented students dropping below the norm for that group.

1995 Transfer Assembly

Mean Transfer Rates for Students

(N=239)*

	Ethnic Groups				
	Black	**Hispanic**	**White**	**Asian**	**Total**
All Colleges	12.5	12.4	23.4	23.6	21.2
Top Quartile *(58 colleges)*	19.7	23.7	32.2	27.3	31.6
Bottom Quartile *(58 colleges)*	6.1	5.7	9.8	9.4	8.3

* 239 is the number of single-colleges for which ethnic data were available. The remaining 135 colleges were not included because their transfer rates were reported as a collapsed transfer rate for particular states, districts, or state centers.

Thus a high transfer rate college is a high transfer rate college; all groups participate when the college set is toward transfer. And in the colleges with exceedingly low transfer rates, very few students regardless of ethnicity make the move into universities.

One of the goals of the latter part of the 20th century is that the rate of high school graduation, higher education participation, and college graduation will reach parity among the various ethnic groups in the United States. When viewed from the standpoint of any single institution in any given year, this goal looks unattainable. In fact the Goals 2000: Educate America Act, passed by Congress in 1994 seems much too optimistic when it proclaims that higher education participation will reach parity by 2000. However, looking at the change in participation rates over the past 30 years, although 2000 seems too short a time, setting a goal of parity is not too daunting.

Policies and Programs

Why do transfer rates vary as much as they do? Some reasons for the wide between-state disparity are obviously related to state-system structures. In states where the two-year institutions are organized as branch campuses of the state university, the transfer rates are high. In states where the colleges are organized as technical institutes that emphasize trade and industry programs, the transfer rates are low. No surprise there; but deviations from the comprehensive-college norm appear also in states where mandates restricting college growth are imposed. Enrollment caps eventually elevate the transfer rate because the colleges tend to react

by cutting the programs that attract adult, part-time students; that is, those least likely to transfer.

A few researchers have tackled the question of between-state differences. Orfield and Paul (1992) contended that in the states that relied heavily on community colleges as access points, the baccalaureate attainment rate was depressed and concluded that the state's higher education system was at fault. Mabry (1995) found that variations in transfer rates could be predicted by whether a state's community colleges were more centered on technical than on comprehensive programs, but beyond that, was unable to determine definitively that population characteristics, state structures, or state policies were influential. In states that have both comprehensive and technical colleges, the differences are predictable. But where the colleges all ostensibly provide the same types of programs, the reasons for the disparities must be traced to local conditions. Some conditions, such as community demographics and the college's proximity to a university campus, are immutable. Others, such as local employment or economic conditions, are beyond college control. When these powerful forces are factored out, the influences of staff-generated practices pales.

Since the within-state differences are greater than the between-state differences, the Center staff and the National Center for Academic Achievement and Transfer set up a project to investigate discernible differences between high and low transfer rate colleges in the same state. By interviewing college administrators and surveying a sample of students and faculty in one college selected from the highest and lowest in each of eight states, college policies and history, and staff and student attitudes were assessed. Over 3000 students on low transfer rate

campuses and 4000 students on high transfer rate campuses were surveyed. In addition, 244 faculty members participated in the survey.

The findings were that there were few differences between high and low colleges along many areas that might have been suspected as contributing: articulation agreements; common course numbering systems; the attitudes of faculty advisors or counselors; the presence or absence of honors programs and honors societies; the regularity of visits from university staff members; jobs for students on campus; faculty exchange between two-year and four-year institutions; mandatory orientation policies; and the types of course syllabi in use.

However, a few characteristics did differentiate. High transfer rate colleges had a visible and vigorous transfer center staff, an accessible university with low grade point averages for transferring students, a staff with expectations regarding transfer, and a history of high transfer even as the population of the district shifted. In addition, these campuses featured high school advanced placement courses and a greater use of institutional research data.

The student data also revealed some differences. Students in the high transfer rate colleges were more likely to indicate *transfer* as their academic objective. Low transfer rate college students more often wished to gain skills to enter immediate employment. Similar patterns were seen when students were asked what they felt their colleges' major emphases were. The majority of high transfer rate college students felt that their school emphasized transfer preparation; low transfer students indicated that both preparation for transfer to a four-year college and preparation for immediate employment were their college's primary emphases. One interesting finding was that the majority of students in both high and low transfer rate colleges

felt that preparation for transfer *should be* the major emphasis of their college (59 percent and 43 percent respectively).

Despite the inequitable difference in transfer emphasis, at least 61 percent of students on both high and low transfer campuses rated the assistance they received in the transfer process as either "somewhat or very helpful". Over 77 percent of students on both types of campuses gave similar evaluations to professors who assisted with the transfer process. In addition, students on these campuses were generous in their assessment of how their colleges have affected them. Most students in both high and low transfer colleges felt that the college "provided focus and direction," "gave [them] confidence," and "informed [them] of alternatives". Not surprisingly, students on the low transfer campuses felt their employable skills were better developed. By small margins, students on low transfer campuses also reported that the college increased their self-awareness and increased their desire for further education. More students on high transfer rate campuses received information about transferring to four-year colleges while students on the low transfer campuses received more information about employment opportunities. Most students on both types of campuses projected that they would be enrolled in a four-year college or university within three years of the survey.

The faculty at both low and high transfer rate colleges gave similar responses when asked about their colleges' goals, emphases and strengths. These faculty agreed that mastery and understanding, preparation for formal education, and being able to apply their skills and knowledge, were most important goals for their students on their campuses. They were also most likely to indicate that being able to gain "knowledge and interest" within surrounding communities was a goal of little to no importance for their students. In addition, the faculty at

both low transfer rate colleges and high transfer rate colleges believe in the importance of helping students transfer to four-year institutions. The faculty disagreed with statements that their students are "not academically qualified". They also believed college to be an effective tool in assisting students with transferring, and should emphasize helping students attain baccalaureate degrees. As might be expected, high transfer rate college faculty placed somewhat more emphasis on transfer assistance than did low transfer rate college faculty. Faculty in both types of colleges felt that their campuses should create stronger ties with baccalaureate-granting institutions. High transfer rate college faculty rated this as important most often.

Perhaps these faculty invoke a realistic approach to the education of their students. While they firmly believe in helping students attain admission to four-year colleges, they also believe in the importance of assisting students with career training and job placement. Faculty within both types of colleges stated that colleges should emphasize developing programs to help students attain jobs after college. Understandably, more low transfer rate college faculty felt this was an important emphasis. More faculty in low transfer rate colleges replied that career and occupational training should be emphasized in college, 69 percent versus 48 percent in the high transfer rate colleges.

One heartening finding from the responses of faculty is that on both types of campuses, faculty did not necessarily prefer to teach "somewhere else". When asked, 57 percent of low transfer college faculty, and 63 percent of high transfer college faculty stated that they disagreed with statements that they would prefer to teach elsewhere. Community college instruction is a distinct career. Both groups, however, did state a desire to be in more contact with university faculty.

One hundred three administrators at these sixteen colleges were also interviewed about their colleges' policies affecting the transfer rates of their students. Their responses indicate similarities in the beliefs and perceptions of staff members at colleges with both high and low transfer rates. For example, administrators at both colleges were aware of financial aid sources and availability for students, and were able to describe such programs as "transfer days" and articulation agreements with four-year institutions.

Administrators at high transfer campuses, however, were able to enumerate special organizational cultures and orientations which help to augment the goals and processes for transfer education. One administrator said that the "institutional mindset" of the college is the belief that they are a transfer college for their state's university system. At another college, the administrator indicated a "general attitude of transfer prevails" on campus. Still another individual stated that students receive institutional support for their transfer goals with the implementation of a college scholarship team which competes with other colleges, the assistance of counselors to help the student define their own goals, and "articulation agreements signed in blood." Still another noted that upon arriving to their college, students are asked to name their academic major and the four-year institution to which they intend to transfer. At one campus, administrators were proud of faculty visibility, office hours and offices located near classrooms, facilitating a strong, positive faculty-student interaction conducive to the transfer process. Administrators noted that many general education community college courses are automatically transferred for credit at four-year institutions, helping students to move quickly to the four-year institutions.

At low transfer rate colleges, administrators who were interviewed cited fewer *specific* programs and policies which encourage students to transfer to four-year institutions. One administrator at a low transfer college stated that students who received "honors" in high school may take community college courses during the summer months without a fee. In addition, one community college has established a program with a four-year institution where the student who has earned an associate degree may have a baccalaureate degree program tailor-made to match his or her interests. The low transfer rate colleges were distinguished by discrepant responses to the interview questions, a diffused effort with many different programs, and an opportunistic attitude, especially when it came to retrieving extramural funds for all sorts of programs. They placed blame on outsiders, and made such comments as, "The university doesn't want our students," and "The student's families are not interested in transfer." Many held the perception that transfer is just another function and exhibited no great concern one way or another for the transfer rates.

Administrators at both high and low transfer rate campuses agreed that more could and should be done to assist students in meeting their transfer goals. Suggestions made by those interviewed included mandating common course numberings throughout all state institutions. In addition, stronger articulation agreements, more financial aid and concurrent enrollment at both two- and four-year campuses would be of benefit. One person interviewed suggested that universities should accept most or all community college courses for transfer credit. At the very least, improved understanding and agreement between two- and four-year campuses should be established in order to decide what will be accepted for transfer to a university. Administrators agreed that universities should not change policies which may negatively effect a student's

transfer eligibility or goals. Further, four-year campus representatives could visit community colleges more often, and community colleges could communicate and strategize more effectively with surrounding high schools to assist students in meeting their higher education goals.

Summary

These data on transfer rates are useful for those who would assist students in navigating a chaotic system. Transfer, to use the example detailed in this paper, does not happen automatically but is a function of college activities and the perceptions held by students and staff members. Student flow is a local responsibility; it seems only tangentially related to state policies.

Higher education operates with a great deal of internal inertia. Stasis in curriculum and role expectations, and the heavy hand of tradition act to retard the pace of change. The students' prior learning, the funding that comes from extramural sources, state mandates for interinstitutional articulation and for uniform graduation requirements, and federal goals for student-body representativeness all intrude. But one who would understand college outcomes would look to the single college as the unit of analysis.

As example of the glacial pace at which higher education changes, the traditional classical studies were sustained in the colleges throughout most of the 19th century. Science forced its way in eventually but in most institutions not until at least 50 years after it had demonstrated its value in directing the course of research and experimentation. The hard-won research emphasis

which began in the last quarter of the 19th century became the norm for the universities throughout the 20th century, giving rise to a class of professionalized faculty members. Just as science had to fight its way in through the classics, the need for professors who will teach more, spend more time with their students and less on the esoterica of research, is having a difficult time entering the academy at the end of the century. And easing student moving from one institution to another within a disorderly system presents a similar challenge.

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